

LIST OF CLAIMS / AMENDMENTS

Please amend claims 1, 6, 10, 11, 13, 15, 19, 24, 28 and 33 as shown herein.

Claims 1 - 36 are pending and are listed as follows:

1. (Currently Amended) A method comprising:

decoding an enhancement layer bitstream without decoding a base layer bitstream from encoded video data, the encoded video data having a base layer and one or more enhancement layers, the video data having been encoded according to a high HQRB (high quality reference bit-rate);

determining data throughput characteristics of a network coupled to a client computing device;

calculating a new HQRB based on a difference between the data throughput characteristics of the network and a base layer bit rate; and

encoding the enhancement layer bitstream based on the new HQRB to generate a transcoded enhancement layer for streaming to the client computing device with the not-decoded base layer bitstream; and
~~wherein the base layer is not decoded for streaming to the client computing device.~~

2. (Previously Amended) The method of claim 1, wherein the encoding substantially optimizes transcoded enhancement layer for streaming with the base layer across the network to the client computing device as compared to streaming of the encoded video data.

3. (Previously Amended) The method of claim 1, wherein the encoded video data is encoded using progressive fine-granularity scalable (PFGS), MA-FGS, or RFGS encoding criteria.

4. (Previously Amended) The method of claim 1, wherein the data throughput characteristics indicate a relatively low data throughput, and wherein calculating the new HRQB further comprises:

responsive to identifying the relatively low data throughput, selecting the new HRQB to be lower than the high HRQB.

5. (Previously Amended) The method of claim 1, wherein the data throughput characteristics indicate a relatively high data throughput, and wherein calculating the new HRQB further comprises:

responsive to identifying the relatively high data throughput, selecting the new HRQB to be the same or higher than the high HRQB.

6. (Currently Amended) The method of claim 1, wherein the encoding further comprises:

determining motion vector(s) from the base layer without decoding an entirety of a bitstream corresponding to the base-layer; and

encoding the enhancement layer bitstream with the determined motion vector(s) to generate the transcoded enhancement layer for streaming to the client computing device.

7. (Previously Amended) The method of claim 1, wherein the method further comprises streaming the transcoded enhancement layer and the base layer across the network to the client computing device.

8. (Previously Amended) The method of claim 1, wherein the method further comprises encoding video data to generate the one or more enhancement layers and the base layer.

9. (Previously Amended) The method of claim 1, wherein the method further comprises determining networking and/or video presentation capabilities of the client computing device, and wherein calculating the new HQRB further comprises formulating the new HQRB based on one or more of the networking and/or video presentation capabilities.

10. (Currently Amended) A computer-readable medium encoded with computer-executable instructions that when executed by a processor implement operations comprising:

(a) decoding an enhancement layer bitstream without decoding a base layer bitsteam from encoded video data, the encoded video data having a base layer and one or more enhancement layers, the video data having been encoded according to a high HQRB (high quality reference bit-rate);

(b) determining data throughput characteristics of a network coupled to a client computing device and changes to the data throughput characteristics of the network;

(c) calculating a new HQRB based on the data throughput characteristics of the network and a base layer bit rate; and

(d) encoding the enhancement layer bitstream based on the new HQRB to generate a transcoded enhancement layer for streaming to the client computing device with the not decoded base layer bitstream; and

(e) repeating (b) – (d) in response to changes in throughput characteristics of the network and wherein the base layer is not decoded for streaming to the client computing device.

11. (Currently Amended) The computer-readable medium of claim 10, wherein the computer-executable instructions for encoding substantially optimize[s] transcoded enhancement layer for streaming with the base layer across the network to the client computing device as compared to streaming of the encoded video data.

12. (Previously Amended) The computer-readable medium of claim 10, wherein the encoded video data is encoded using progressive fine-granularity scalable (PFGS), MA-FGS, or RFGS encoding criteria.

13 (Currently Amended) The computer-readable medium of claim 10, wherein the data throughput characteristics indicate a relatively low data throughput, and wherein[] operations for calculating further comprise operations, responsive to identifying the relatively low data throughput, for selecting the new HRQB to be lower than the high HRQB.

14. (Previously Amended) The computer-readable medium o f claim 10, wherein the data throughput characteristics indicate a relatively high data throughput, and wherein operations for calculating the new HRQB further comprise operations, responsive to identifying the relatively high data throughput, for selecting the new HRQB to be the same or higher than the high HRQB.

15. (Currently Amended) The computer-readable medium of claim 10, wherein operations for encoding further comprise operations for determining motion vector(s) from the base layer without decoding an entirety of a bitstream corresponding to the base-layer, and for encoding the enhancement layer bitstream with the determined motion vector(s) to generate the transcoded enhancement layer for streaming to the client computing device.

16. (Previously Amended) The computer-readable medium of Claim 10, wherein the operations further comprise operations for streaming the transcoded enhancement layer and the base layer across the network to the client computing device.

17. (Previously Amended) The computer-readable medium of claim 10, wherein the operations further comprise operations for encoding video data to generate the one or more enhancement layers and the base layer.

18. (Previously Amended) The computer-readable medium of claim 10, wherein the operations further comprising operations for determining networking and/or video presentation capabilities of the client computing device, and wherein calculating the new HQRB further comprises formulating the new HQRB based on one or more of the networking and/or video presentation capabilities.

19. (Currently Amended) A computing device comprising a processor coupled to a memory, the memory being encoded with computer-program instructions executable by the processor to implement operations comprisingcomprise:

decoding an enhancement -layer bitstream from encoded video data, the encoded video data having a base layer and one or more enhancement layers, the video data having been encoded according to a high HQRB (high quality reference bit-rate);

determining data throughput characteristics of a network coupled to a client computing device;

calculating a new HQRB based on a difference between the data throughput characteristics of the network and a bit rate of the base layer; and

encoding the enhancement layer bitstream based on the new HQRB to generate a transcoded enhancement layer for streaming to the client computing device; and

wherein the base layer is not decoded for streaming to the client computing device.

20. (Previously Amended) The computing device of claim 19, wherein the computer-executable instructions for encoding substantially optimizes transcoded enhancement layer for streaming with the base layer across the network to the client computing device as compared to streaming of the encoded video data.

21. (Previously Amended) The computing device of claim 19, wherein the encoded video data is encoded using progressive fine-granularity scalable (PFGS), MA-FGS, or RFGS encoding criteria.

22. (Previously Amended) The computing device of claim 19, wherein the data throughput characteristics indicate a relatively low data throughput, and wherein the operations for calculating the new HRQB further comprise operations ,responsive to identifying the relatively low data throughput, for selecting the new HRQB to be lower than the high HRQB.

23. (Previously Amended) The computing device of claim 19, wherein the data throughput characteristics indicate a relatively high data throughput, and wherein the operations for calculating the new HRQB further comprise operations, responsive to identifying the relatively high data throughput, for selecting the new HRQB to be the same or higher than the high HRQB

24. (Currently Amended) The computing device of claim 19, wherein the operations for encoding further comprise operations for determining motion vector(s) from the base layer without decoding an entirety of a bitstream corresponding to the base-layer; and operations for encoding the enhancement layer bitstream with the determined motion vector(s) to generate the transcoded enhancement layer for streaming to the client computing device.

25. (Previously Amended) The computing device of claim 19, wherein the operations further comprise operations for streaming the transcoded enhancement layer and the base layer across the network to the client computing device.

26. (Previously Amended) The computing device of claim 19, wherein the operations further comprise operations for encoding video data to generate the one or more enhancement layers and the base layer.

27. (Previously Amended) The computing device of claim 19, wherein the operations further comprise operations for determining networking and/or video presentation capabilities of the client computing device, and wherein calculating the new HQRB further comprises formulating the new HQRB based on one or more of the networking and/or video presentation capabilities.

28. (Currently Amended) A computing device comprising processing means in a tangible computer-readable medium, the processing means comprising:

means for decoding an enhancement layer bitstream from encoded video data without decoding a base layer bitstream from the encoded video data, the encoded video data having a base layer and one or more enhancement layers, the video data having been encoded according to a high HQRB (high quality reference bit-rate);

means for determining data throughput characteristics of a network coupled to a client computing device;

means for calculating a new HQRB based on a difference between the data throughput characteristics of the network and a base layer bit rate;
and

means for encoding the enhancement layer bitstream based on the new HQRB to generate a transcoded enhancement layer for streaming to the client computing device with the base layer bitstream; and
~~wherein the base layer is not decoded for streaming to the client computing device.~~

29. (Previously Amended) The computing device of claim 28, wherein the means for encoding substantially optimizes transcoded enhancement layer for streaming with the base layer across the network to the client computing device as compared to streaming of the encoded video data.

30. (Previously Amended) The computing device of claim 28, wherein the encoded video data is encoded using progressive fine-granularity scalable (PFGS), MA-FGS, or RFGS encoding criteria.

31. (Previously Amended) The computing device of claim 28, wherein the data throughput characteristics indicate a relatively low data throughput, and wherein the means for calculating the new HRQB further comprise, responsive to identifying the relatively low data throughput, means for selecting the new HRQB to be lower than the high HRQB.

32. (Previously Amended) The computing device of claim 28, wherein the data throughput characteristics indicate a relatively high data throughput, and wherein the means for calculating the new HRQB further comprise, responsive to identifying the relatively high data throughput, means for selecting the new HRQB to be the same or higher than the high HRQB.

33. (Currently Amended) The computing device of claim 28, wherein the means for encoding comprises:

means for determine determining motion vector(s) from the base layer without decoding an entirety of a bitstream corresponding to the base-layer; and

means for encoding the enhancement layer bitstream with the determined motion vector(s) to generate the transcoded enhancement layer for streaming to the client computing device.

34. (Previously Amended) The computing device of claim 28, wherein the processing means comprise means for encoding video data to generate the one or more enhancement layers and the base layer.

35. (Previously Amended) The computing device of claim 28, wherein the processing means further comprise means for streaming the transcoded enhancement layer and the base layer across the network to the client computing device.

36. (Previously Amended) The computing device of claim 28, wherein the processing means further comprise means for determining networking and/or video presentation capabilities of the client computing device, and wherein the means for calculating the new HQRB further comprises means for formulating the new HQRB based on one or more of the networking and/or video presentation capabilities.